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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,149	09/01/2005	Yoshikazu Yamanaka	0149-045841	5018

7590 07/12/2007

Russell D Orkin
700 Koppers Building
436 Seventh Avenue
Pittsburgh, PA 15219-1818

EXAMINER	
WON, BUMSUK	

ART UNIT	PAPER NUMBER
2879	

MAIL DATE	DELIVERY MODE
07/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/518,149	YAMANAKA ET AL.	
	Examiner	Art Unit	
	Bumsuk Won	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/25/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 16-28, "an inner magnetic shield material" in the preamble is confusing whether the claims recite a material or a device. For examining purpose, the examiner will assume the preamble recites a device. Claims 29 and 30 are rejected due to claim dependency.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: Inner magnetic shield used in cathode ray tube and process for producing the same.

Claim Objections

Claims 21, 29 and 30 are objected to because of the following informalities:

Regarding claim 21, "({Si} and {Al], respectively, in wt%)" should be "([Si] and [Al], respectively, in wt%)". Appropriate correction is required.

Regarding claim 29, the claim is dependent on a cancelled claim. Appropriate correction is required. For examining purpose, it will be assumed that claim 29 is dependent on claim 16. Claim 30 is objected to due to claim dependency.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 23 and 26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 4 of copending Application No. 11/522,643. Although the conflicting claims are not identical, they are not patentably distinct from each other. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

INSTANT APPLICATION	11/522,643	COMMENTS
CLAIM 23	CLAIM 1	Both claims recite a method of manufacturing a material for an inner magnetic shield comprising metal strip with overlapping ranges of surface roughness and thickness, and organic resin coating with C and H.

CLAIM 26	CLAIM 4	Both claims recite the organic resin coating having metal oxide.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 16 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamanaka (WO/2002/054435, English abstract).

Regarding claim 16, Yamanaka discloses an inner magnetic shield comprising a cold rolled steel sheet having a surface roughness of 0.2-3 μm, an organic resin comprising C and H having a thickness of 0.3-5 μm (abstract, regarding the ratio of thickness to the surface roughness, the disclosed ranges meets the range of 0.2-0.4).

Regarding claim 23, Yamanaka discloses a method of manufacturing an inner magnetic shield comprising a cold rolled steel sheet having a surface roughness of 0.2-3 μm, an organic resin comprising C and H having a thickness of 0.3-5 μm (abstract, regarding the ratio of thickness to the surface roughness, the disclosed ranges meets the range of 0.2-0.4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 16, 20, 23, 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura (US 5,821,686) in view of Aoyama (JP 61213365).

Regarding claim 16, Nomura discloses an inner magnetic shield (figure 1, inner shield) comprising a steel strip (column 3, lines 15-21, cold rolling aluminum killed cold rolled steel sheet) with a surface roughness of 0.2-2.0 μm and a coating film thickness of 0.1-5.0 μm, and the ratio of the thickness to the surface roughness is between 0.05-25.

Nomura does not disclose the coating film is an organic resin.

Aoyama discloses in an analogous art having a metal or metal alloy having a coating film with organic polymer compound (abstract, constitution), for the purpose of protecting the metal from rusting.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a metal or metal alloy with a organic polymer compound coating film as disclosed by Aoyama in the device disclosed by Nomura, for the purpose of protecting the metal from rusting.

Regarding claim 20, the examiner notes that the claim limitation of the wherein clause is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (MPEP 2113).

Regarding claim 23, Nomura discloses a method of manufacturing an inner magnetic shield (figure 1, inner shield) comprising a steel strip (column 3, lines 15-21, cold rolling aluminum killed cold rolled steel sheet) with a surface roughness of 0.2-2.0 μm and a coating film thickness of 0.1-5.0 μm, and the ratio of the thickness to the surface roughness is between 0.05-25.

Nomura does not disclose the coating film is an organic resin.

Aoyama discloses in an analogous art having a metal or metal alloy having a coating film with organic polymer compound (abstract, constitution), for the purpose of protecting the metal from rusting.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a metal or metal alloy with a organic polymer compound coating film as disclosed by Aoyama in the method disclosed by Nomura, for the purpose of protecting the metal from rusting.

Regarding claim 29, Nomura discloses the inner magnetic shield (figure 1, inner shield). The examiner notes that the claim limitation of the "without blackening treatment" is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (MPEP 2113).

Regarding claim 30, Nomura discloses a color picture tube (figure 1) having the inner magnetic shield as claimed in claim 29.

Claims 16, 19, 20, 22, 23, 26 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura (US 5,618,401) in view of Aoyama (JP 61213365).

Regarding claim 16, Nomura discloses an inner magnetic shield (column 3, lines 19-25) comprising a steel strip (column 3, lines 19-25, cold rolling aluminum killed cold rolled steel sheet) with a surface roughness of 0.2-2.0 μm and a coating film thickness of 0.1-5.0 μm, and the ratio of the thickness to the surface roughness is between 0.05-25.

Nomura does not disclose the coating film is an organic resin.

Aoyama discloses in an analogous art having a metal or metal alloy having a coating film with organic polymer compound (abstract, constitution), for the purpose of protecting the metal from rusting.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a metal or metal alloy with a organic polymer compound coating film as disclosed by Aoyama in the device disclosed by Nomura, for the purpose of protecting the metal from rusting.

Regarding claim 19, Nomura discloses the coating contains Fe_3O_4. However, Nomura in view of Aoyama does not specifically disclose the total amount of Fe_3O_4. However, one of ordinary skill in the art would have been led to the recited amount through routine experimentation and optimization. Applicant has not disclosed that the amount are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that the process would possess utility using another amount. Indeed, it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the

limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical.

Regarding claim 20, the examiner notes that the claim limitation of the wherein clause is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (MPEP 2113).

Regarding claim 22, Nomura discloses the inner shield has Ni plated film (column 2, line 53). However, Nomura in view of Aoyama does not specifically disclose the coating weight of the Ni plated film. However, one of ordinary skill in the art would have been led to the recited dimensions through routine experimentation and optimization. Applicant has not disclosed that the dimensions are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that the process would possess utility using another dimension. Indeed, it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical.

Regarding claim 23, Nomura discloses a method of manufacturing an inner magnetic shield (column 3, lines 19-25) comprising a steel strip (column 3, lines 19-25, cold rolling aluminum killed cold rolled steel sheet) with a surface roughness of 0.2-2.0 μm and a coating film thickness of 0.1-5.0 μm, and the ratio of the thickness to the surface roughness is between 0.05-25.

Nomura does not disclose the coating film is an organic resin.

Aoyama discloses in an analogous art having a metal or metal alloy having a coating film with organic polymer compound (abstract, constitution), for the purpose of protecting the metal from rusting.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a metal or metal alloy with a organic polymer compound coating film as disclosed by Aoyama in the method disclosed by Nomura, for the purpose of protecting the metal from rusting.

Regarding claim 26, Nomura discloses the coating contains Fe_3O_4. However, Nomura in view of Aoyama does not specifically disclose the total amount of Fe_3O_4. However, one of ordinary skill in the art would have been led to the recited amount through routine experimentation and optimization. Applicant has not disclosed that the amount are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that the process would possess utility using another amount. Indeed, it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical.

Regarding claim 28, Nomura discloses the cold rolled steel strip is subjected to, prior to the formation of the coating film, Ni plating (column 2, lines 18-54). However, Nomura in view of Aoyama does not specifically disclose the coating weight of the Ni plated film. However, one of ordinary skill in the art would have been led to the recited dimensions through routine experimentation and optimization. Applicant has not disclosed that the dimensions are for a

particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that the process would possess utility using another dimension. Indeed, it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical.

Regarding claim 29, Nomura discloses the inner magnetic shield (figure 1, inner shield). The examiner notes that the claim limitation of the "without blackening treatment" is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (MPEP 2113).

Regarding claim 30, Nomura discloses a color picture tube (column 1, line 16) having the inner magnetic shield as claimed in claim 29.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bumsuk Won whose telephone number is 571-272-2713. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bumsuk Won/

Patent Examiner, Art Unit 2879

JOSEPH WILLIAMS
PRIMARY EXAMINER